

Work Order ID 142272

142272

Page 1

March 04, 2016 8:49:07 AM

Item ID: D2932-1RLC Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Saddle LH Out, 206
 Start Date: 3/8/2016 Start Qty: 5.00 ***5*** Cust Item ID:
 Required Date: 3/18/2016 Req'd Qty: 5.00 ***5*** Customer:
 Reference:

Approvals: Process Plan: SHA Date: 20160304 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2932	Rev C								

100
100 HAAS CNC VERTICAL MACHINING #1 0.01
 HAAS 1 **B.A 16/03/12** DAS 08 5 0 9-89 40
 HAAS CNC vertical machine #1 Memo 0.07 16/03/11
 Program part number and batch number.

- 1-Inspect part number and batch number are programmed correctly.
- 2-Machine Step No 1 of Folio and visually inspect as per dwg D2932 & attached Dimension Sheet
- 3-Machine Step No 2 of Folio and visually inspect as per

110
110 CONVENTIONAL MILLING MACHINE 0.00
 Mill Conv **B.A 16/03/12** DAS 08 5 0 9-89 40
 Conventional Milling Machine Memo 0.01 16/03/11
 Machine Keyway and inspect per attached dimension sheet

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

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Page 2

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 Required Date: 3/18/2016 Req'd Qty: 5.00 ***5*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC1- Inspection performed by CMM Memo	0.00 0.00		B.A	16/03/12	5	0		DAS 08 9-80
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00				5	0		DAS 14 9-39 16/03/15
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				5	0		16-3-15 LH

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval			
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY									
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____									
Misidentified ☐	Past Due ☐										

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER :									

Work Order ID 142272

March 04, 2016 8:49:07 AM

142272

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Item ID: D2932-1RLC

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Saddle LH Out, 206

Start Date: 3/8/2016 Start Qty: 5.00

5

Cust Item ID:

Required Date: 3/18/2016 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC21 - Final Inspection - Work Order Release

0.00

180

QC

Memo

0.01

Quality Control

MLJ

APR 06 2016

MW

APR 06 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

March 04, 2016 8:49:11 AM

Page 1

Work Order ID: 142272

142272

Parent Item: D2932-1RLC

D2932-1RLC

Parent Item Name: Saddle LH Out, 206

Start Date: 3/8/2016

Required Date: 3/18/2016

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP: B00.06.26New DWG rev, (mpp 2069)EC
IPP Rev:C As per Rev C 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D6101-003

Manufactured No

100

Each

64.0000

1

5

D6101-003

Saddle Billet, 7075

5.0 16/03/13

Location

Loc Qty

Loc Code

MAT045

6

136764

6

MAT046

58

138991

20

→ 140552

18

141201

20

5.0

142 270

DART AEROSPACE LTD	Work Order: <i>142 270</i>
Description: 206 Saddle, Outboard, Left side	Part Number: D2932-1
Inspection Dwg: D2932 Rev. C	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2932 Rev. C and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.100	0.140		0.112	0.114	0.114	0.114		
B	0.100	0.140		0.110	0.114	0.114	0.114		
C	0.100	0.140		0.111	0.114	0.114	0.114		
D	0.210	0.230		0.219	0.219	0.218	0.219		
E	1.245	1.255		1.250	1.250	1.250	1.250		
F	1.245	1.255		1.250	1.250	1.250	1.250		
G	2.495	2.505		2.500	2.500	2.500	2.500		
H	0.510	0.515		0.513	0.512	0.512	0.512		
I	1.572	1.582		1.577	1.577	1.577	1.577		
J	2.495	2.505		2.500	2.500	2.500	2.500		
K	0.257	0.262		0.258	0.258	0.258	0.258		
L	0.312	0.317		0.314	0.314	0.314	0.314		
M	0.235	0.240		0.239	0.239	0.239	0.239		
N	0.100	0.140		0.116	0.116	0.117	0.116		
O	0.540	0.560		0.550	0.548	0.548	0.548		
P	0.490	0.510		0.500	0.500	0.500	0.500		
Q	3.715	3.725		3.720	3.720	3.720	3.720		
R	2.470	2.510		2.490	2.490	2.490	2.490		
S	0.240	0.270		0.251	0.253	0.252	0.252		
T	0.100	0.180		0.136	0.130	0.130	0.130		
U	1.625	1.635		1.630	1.630	1.630	1.630		
V	1.362	1.372		1.367	1.367	1.367	1.367		
W	0.316	0.321		0.317	0.316	0.316	0.316		
X	1.125	1.145		1.1341	1.1350	1.1345	1.1345		
Y	1.565	1.585		1.5721	1.5740	1.574	1.574		
Z	0.178	0.198		0.188	0.188	0.188	0.188		
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject				✓					

Measured by:	DAS 40	DAS 06
Date:	16/03/14	16/03/12

Audited by:	14
Date:	16/03/15

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	

DART AEROSPACE LTD	Work Order: 142272
Description: 206 Saddle, Outboard, Left side	Part Number: D2932-1
Inspection Dwg: D2932 Rev. C	Page 1 of 1

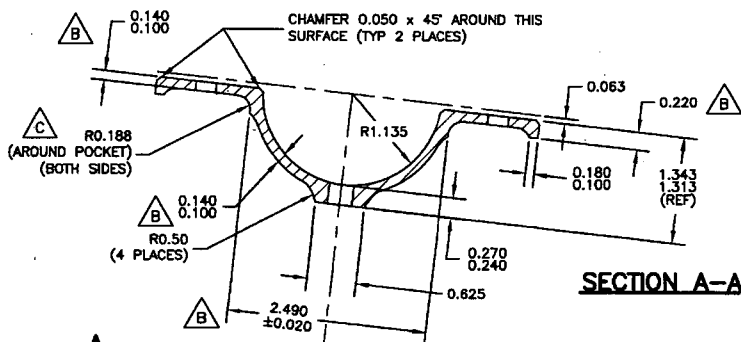
Inspect dimensions highlighted on inspection sheet drawing D2932 Rev. C and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1/5	X	X	X	By	Date
A	0.100	0.140		0.113					
B	0.100	0.140		0.114					
C	0.100	0.140		0.114					
D	0.210	0.230		0.219					
E	1.245	1.255		1.250					
F	1.245	1.255		1.250					
G	2.495	2.505		2.500					
H	0.510	0.515		0.512					
I	1.572	1.582		1.577					
J	2.495	2.505		2.500					
K	0.257	0.262		0.258					
L	0.312	0.317		0.314					
M	0.235	0.240		0.239					
N	0.100	0.140		0.114					
O	0.540	0.560		0.548					
P	0.490	0.510		0.500					
Q	3.715	3.725		3.720					
R	2.470	2.510		2.490					
S	0.240	0.270		0.252					
T	0.100	0.180		0.130					
U	1.625	1.635		1.630					
V	1.362	1.372		1.367					
W	0.316	0.321		0.316					
X	1.125	1.145		1.1345					
Y	1.565	1.585		1.574					
Z	0.178	0.198		0.188					
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

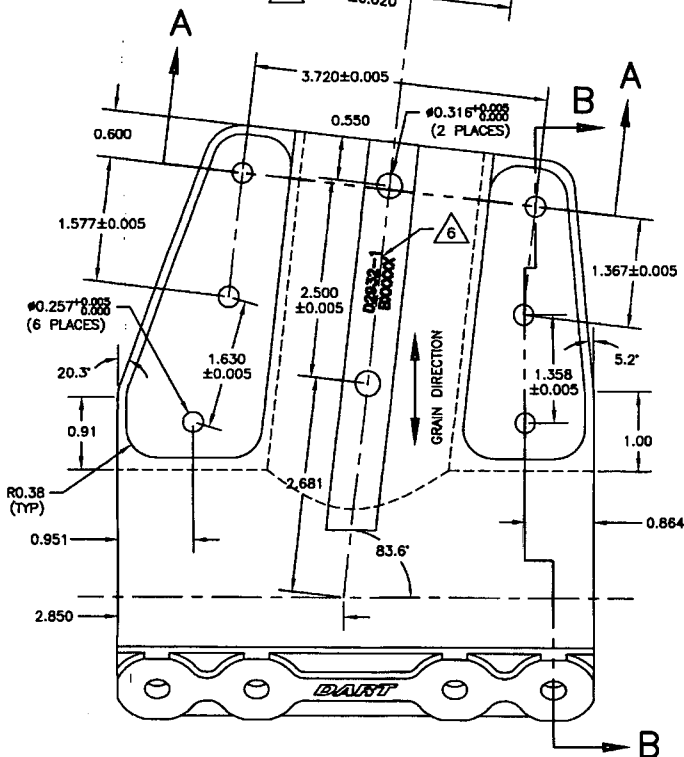
Measured by: B.A.	DAS
Date: 16/03/12	03
	9:30

Audited by: DAS	14
Date: 16/03/15	9:30

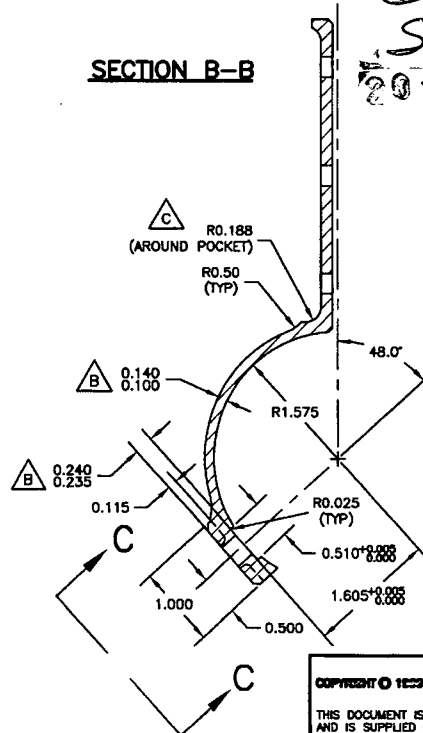
Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	



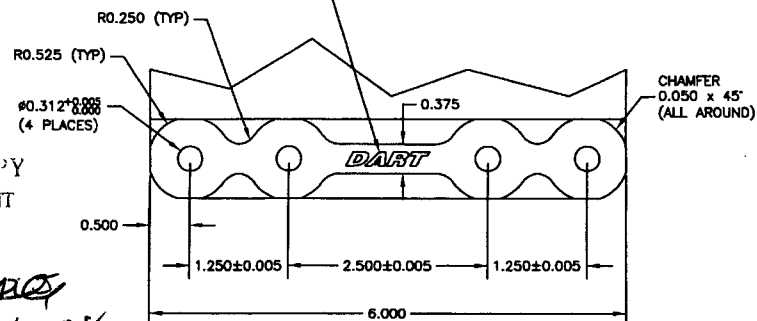
SECTION A-A



SECTION B-B



ENGRAVE DART LOGO TO MAX DEPTH OF 0.005 WITH MIN RAD 0.250



VIEW C-C

D2932-1 LH SADDLE (SHOWN)
D2932-2 RH SADDLE (OPPOSITE)

NOTES:

- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12) (MAKE FROM D6101-003 SADDLE BILLET, 7075)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP

C	06.11.09	R0.188 WAS R0.30 TO R0.25
B	00.05.29	CHANGED GEOMETRY AND MATERIAL
A	99.10.29	NEW ISSUE
DESIGN	CB	DART DART AEROSPACE USA, INC.
CHECKED	PH	DRAWING NO. D2932
DATE	06.11.09	TITLE SADDLE OUTSIDE

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REV. C
SHEET 1 OF 1
SCALE
2:3

RELEASED

07-02-02